Advanced Database
Curriculum Content Frameworks

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Curriculum Content Frameworks

Advanced Database

Grade Levels: 10, 11, 12	Prerequisite: CA I, II & III or CBA
Course Code: 492140	

Course Description: Students with advanced knowledge of database are widely sought after in today's era of huge databases as evidenced in companies such as Wal-Mart, Wal-Mart vendor companies, J.B. Hunt, Acxiom, Tyson, and the like. Students will work with multiple table operations, forms and reports. Student will learn advanced database features to manipulate and present data through advanced queries, calculated controls, macros, switchboards, custom forms/reports, subforms, subreports, joins, relationships, and more. Students will learn techniques in sharing, integrating, analyzing and managing a relational database. A brief introduction to SQL is also recommended.

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Unit 1: Introduction to Relational Databases and Database Careers
Hours: 4

<u>Terminology</u>: Backing up, Compacting, Data, Database, Database management system (DBMS), Entry, Field, File, Form, Query, Relational database, Report, Table, Trusted folder

CAREER and TECHNICAL SKILLS			ACADEMIC and WORKPLACE SKILLS		
What the Student Should be Able to Do			What the Instruction Should Reinforce		
Knowledge	Application		Skill Group	Skill	Description
1.1 Define terminology	1.1.1	Prepare a list of terms with definitions	Foundation	Listening	Comprehends ideas and concepts related to plans [1.2.1]
				Writing	Uses words appropriately [1.6.21]
1.2 Explain the purpose of a relational database	1.2.1	Explain how a database is relational	Foundation	Listening	Comprehends concepts related to a relational database [1.2.1]
				Reading	Comprehends written information for main ideas [1.3.7]
					Identifies relevant details, facts, and specifications [1.3.16]
			Thinking	Decision Making	Comprehends ideas and concepts related to databases [4.2.2]
1.3 Explain the hierarchy of data	1.3.1	Explore an exising database identifying the file, record, field, and entry	Foundation	Listening	Comprehends concepts related to a database [1.2.1]
				Reading	Analyzes and applies what has been read to specific task [1.3.2]
					Applies information and concepts derived from printed material to a database [1.3.3]
					Applies/Understands technical words that pertain to the hierachy of data [1.3.6]
			Thinking	Knowing how to learn	Applies new knowledge and skills to a database [4.3.1]
					Uses available resources to acquire new skills in relation to a database [4.3.4]

CAREER and TECHNICAL SKILLS			ACADEMIC and WORKPLACE SKILLS		
What the Student Should be Able to Do			What the Instruction Should Reinforce		
Knowledge		Application	Skill Group	Skill	Description
1.4 Explain relational database system DBMS		1.4.1 Identify advantages of a relational database system DBMS	Foundation	Listening	Comprehends ideas and concepts related to database system [1.2.1]
					Applies/Understands technical words that pertain to relational databases [1.3.6]
				Reading	Identifies relevant details, facts and specifications [1.3.16]
			Thinking	Knowing How to Learn	Applies new knowledge and skills to relational databases [4.3.1]
1.5 Identify the basic objects		1.5.1 List the basic objects (table, report, form, query)	Foundation	Listening	Comprehends concepts related to a database [1.2.1]
				Reading	Analyzes and applies what has been read to specific task [1.3.2]
					Applies information and concepts derived from printed material to a database [1.3.3]
					Applies/Understands technical words that pertain to the hierarchy of data [1.3.6]
			Thinking	Knowing how to Learn	Applies new knowledge and skills to a database [4.3.1]
					Uses available resources to acquire new skills in relation to a database [4.3.4]
1.6 Explain two database management tasks		1.6.1 Compact and back up a database	Foundation	Listening	Comprehends ideas and concepts related to database management tasks [1.2.1]
				Reading	Applies/Understands technical words that pertain to databases [1.3.6]
					Comprehends written information and applies it to a table [1.3.8]
			Thinking	Knowing How to Learn	Applies new knowledge and skills to databases [4.3.1]

CAREER and TECHNICAL SKILLS			ACADEMIC and WORKPLACE SKILLS		
What the Student Should be Able to Do			What the Instruction Should Reinforce		
Knowledge		Application	Skill Group	Skill	Description
1.7 Explain why you may want to create and use a trusted folder	1.7.1	Create a trusted folder	Thinking	Creative Thinking	Combines ideas or information to create a trusted folder [4.1.2]
				Knowing how to	Applies new knowledge and skills to create a trusted folder [4.3.1]
1.8 Discuss careers involving databases	1.8.1	Research various database careers	Personal Management Skills	Career Awareness, Development, and Mobility	Explores career opportunities in database careers [3.1.6]

Unit 2: Building a Relational Database and Defining Table Relationships
Hours: 4

Terminology: Cascade delete/update, Common field, Data redundancy, Default value, Field properties, Input mask, Join, Lookup field, Many-to-many relationship, One-to-many relationship, One-to-one relationship, Primary key, Referential integrity, Required field, Validation rule, Validation text

CAREER and TECHNICAL SKILLS			ACADEMIC and WORKPLACE SKILLS		
What the Student Should be Able to Do			What the Instruction Should Reinforce		
Knowledge	Application		Skill Group	Skill	Description
2.1 Define terminology	2.1.1 Prepare a list of terms with definitions	Foundation		Listening	Comprehends ideas and concepts related to plans [1.2.1]
				Writing	Uses words appropriately [1.6.21]
2.2 Discuss the guidelines for designing databases	2.2.1 Explore an exising database discussing the following guidelines:	Foundation		Listening	Comprehends ideas and concepts related to a relational database [1.2.1]
	Identify all the fields needed to produce the required information			Reading	Applies/Understands technical words that pertain to a database [1.3.6]
	Organize each piece of data into its smallest useful part				Draws conclusions from what is read [1.3.12]
	Determine each table's primary key Include a common field in related tables				Locates pertinent information in documents to organize data [1.3.18]
	Avoid data redundancy Determine the properties of each field			Writing	Organizes information in an appropriate format [1.6.10]
					Writes appropriate entries [1.6.22]
			Thinking	Decision Making	Comprehends ideas and concepts related to tables [4.2.2]
					Demonstrates decision-making skills [4.2.4]
					Evaluates information/data to make best decision [4.2.5]
				Knowing How to Learn	Applies new knowledge and skills to tables [4.3.1]
				Problem Solving	Draws conclusions from observations, evaluates conditions, and gives possible solutions [4.4.5]
				Reasoning	Comprehends ideas and concepts related to relationships between tables [4.5.2]

Knowledge		Application		Skill Group	Skill	Description
2.3	Describe how to create a table	2.3.1	Create a table naming fields, assigning data types and setting field size properties	Foundation	Reading	Comprehends written information and applies it to a table [1.3.8]
					Writing	Applies/uses technical words and concepts [1.6.4]
						Organizes information in an appropriate format [1.6.10]
				Thinking	Creative Thinking	Combines information in a new way [4.1.2]
					Decision Making	Comprehends ideas and concepts related to tables [4.2.2]
					Knowing How to Learn	Applies new knowledge and skills to tables [4.3.1]
						Uses available resources to apply new skills [4.3.6]
2.4	Explain primary key	2.4.1	Set, change or remove primary keys	Foundation	Listening	Comprehends ideas and concepts related to keys [1.2.1]
						Applies/Understands technical words that pertain to primary keys [1.3.6]
				Thinking	Knowing How to	Applies new knowledge and skills to primary keys [4.3.1]
2.5	Identify ways to enhance and improve a table design	2.5.1	Enhance a table by using some of the following features: Set a default value Add an input mask Set a required field Create a lookup field Add a validation rule and text	Foundation	Listening	Comprehends ideas and concepts related to tables [1.2.1]
						Applies/Understands technical words that pertain to tables [1.3.6]
					Reading	Identifies relevant details, facts and specifications [1.3.16]
				Thinking	Knowing How to Learn	Applies new knowledge and skills to tables [4.3.1]

CAREER and TECHNICAL SKILLS			ACADEMIC and WORKPLACE SKILLS		
What the Student Should be Able to Do			What the Instruction Should Reinforce		
Knowledge		Application	Skill Group	Skill	Description
2.6	Explain how to define table relationships	2.6.1 Create joins using primary tables, related tables, and common fields	Foundation	Listening	Comprehends ideas and concepts related to table relationships [1.2.1]
				Writing	Uses words appropriately [1.6.21]
			Thinking	Problem Solving	Comprehends ideas and concepts related to table relationships [4.4.1]
				Decision Making	Comprehends ideas and concepts related to table relationships [4.2.2]
2.7	Compare/Contrast different types of relationships	2.7.1 Create a one-to-one or one-to-many or many-to-many relationship	Foundation	Writing	Organizes information in an appropriate format [1.6.10]
					Records data [1.6.16]
			Thinking	Knowing How to Learn	Applies new knowledge and skills to a relationship [4.3.1]
					Uses available resources to apply new skills to create a new relationship [4.5.1]
				Reasoning	Applies rules and principles to create a new relationship [4.5.1]
					Comprehends ideas and concepts related to creating a new relationship [4.5.2]
2.8	Explain the concept of referential integrity and cascade update/delete	2.8.1 Create a relationship adding referential	Foundation	Listening	Comprehends ideas and concepts related to table relationships [1.2.1]
				Writing	Uses words appropriately [1.6.21]
			Thinking	Problem Solving	Comprehends ideas and concepts related to table relationships [4.4.1]
				Decision Making	Comprehends ideas and concepts related to table relationships [4.2.2]

Unit 3: Maintaining and Formatting Tables in a Database
Hours: 4

Terminology: Ascending, Advanced filter, Descending, Filter, Filter by form, Filter by selection, Find, Sort, Wildcards

CAREER and TECHNICAL SKILLS			ACADEMIC and WORKPLACE SKILLS		
What the Student Should be Able to Do			What the Instruction Should Reinforce		
Knowledge	Application		Skill Group	Skill	Description
3.1　Define terminology	3.1.1　Prepare a list of terms with definitions		Foundation	Listening	Comprehends ideas and concepts related to plans [1.2.1]
				Writing	Uses words appropriately [1.6.21]
3.2　Explain how to modify records in a table	3.2.1　Enter, edit, and delete records		Foundation	Listening	Comprehends ideas and concepts related to plans [1.2.1]
					Listens to follow directions [1.2.6]
				Reading	Applies/Understands technical words that pertain to maintaining a database [1.3.6]
				Writing	Applies/Uses technical words and concepts in maintaining a database [1.6.4]
					Organizes information in an appropriate format [1.6.10]
			Thinking	Learning How to Learn	Applies new knowledge and skills to maintaining a database [4.3.1]
				Reasoning	Applies rules and principles to maintaining a database [4.5.1]
					Comprehends ideas and concepts related to maintaining a database [4.5.2]

CAREER and TECHNICAL SKILLS			ACADEMIC and WORKPLACE SKILLS		
What the Student Should be Able to Do			What the Instruction Should Reinforce		
Knowledge		Application	Skill Group	Skill	Description
3.3 Explain the importance of the Find command	3.3.1	Use the Find command	Foundation	Listening	Comprehends concepts related to the Find command [1.2.1]
				Reading	Analyzes and applies what has been read to specific task [1.3.2]
					Applies information and concepts derived from printed material to the Find command [1.3.3]
					Applies/Understands technical words that pertain to the Find command [1.3.6]
3.4 Describe how to sort records	3.4.1	Sort records in ascending and descending order	Foundation	Listening	Comprehends concepts related to the sorting records [1.2.1]
				Reading	Analyzes and applies what has been read to specific task [1.3.2]
					Applies information and concepts derived from printed material to sorting records [1.3.3]
					Applies/Understands technical words that pertain to sorting records [1.3.6]
			Thinking	Knowing how to Learn	Applies new knowledge and skills to sorting records [4.3.1]
					Uses available resources to acquire new skills in relation to sorting records[4.3.4]

CAREER and TECHNICAL SKILLS			ACADEMIC and WORKPLACE SKILLS		
What the Student Should be Able to Do			What the Instruction Should Reinforce		
Knowledge		Application	Skill Group	Skill	Description
3.5 Explain how to filter records	3.5.1	Filter records using Filter by Form and Filter by Selection	Foundation	Listening	Comprehends concepts related to the filtering records [1.2.1]
	3.5.2	Filter records using an advanced filter		Reading	Analyzes and applies what has been read to specific task [1.3.2]
					Applies information and concepts derived from printed material to filtering records [1.3.3]
					Applies/Understands technical words that pertain to filtering records [1.3.6]
			Thinking	Knowing how to Learn	Applies new knowledge and skills to filtering records [4.3.1]
					Uses available resources to acquire new skills in relation to filtering records[4.3.4]
3.6 Identify wildcards	3.6.1	Use wildcards in a database (#, ?, *)	Foundation	Listening	Comprehends ideas and concepts related to wildcards [1.2.1]
					Applies/Understands technical words that pertain to wildcards [1.3.6]
				Reading	Identifies relevant details, facts and specifications [1.3.16]
			Thinking	Knowing How to Learn	Applies new knowledge and skills to using wildcards [4.3.1]

Unit 4: Creating Simple Queries
Hours: 4

Terminology: Aggregate function, AND, Calculated field, Comparison operators (=, <, >, <=, >=, <>, Between...And…, In (), Like), Group by operators, Logical operators, NOT, OR, Select query, QBE (Query By Example), Query, Recordset

CAREER and TECHNICAL SKILLS			ACADEMIC and WORKPLACE SKILLS		
What the Student Should be Able to Do			What the Instruction Should Reinforce		
Knowledge	Application		Skill Group	Skill	Description
4.1 Define terminology	4.1.1 Prepare a list of terms with definitions		Foundation	Listening	Comprehends ideas and concepts related to plans [1.2.1]
				Writing	Uses words appropriately [1.6.21]
4.2 Explain the purpose of a query	4.2.1 Create a simple query		Foundation	Listening	Comprehends ideas and concepts related to a query [1.2.1] Listens to follow directions [1.2.6]
				Reading	Applies/Understands technical words that pertain to a query [1.3.6]
				Knowing how to Learn	Applies new knowledge and skills to create a query [4.3.1]
				Reasoning	Applies rules and principles to create a query [4.5.1]
4.3 Explain how to create a select query	4.3.1 Create and run a select query using various criteria		Foundation	Reading	Comprehends written information, and applies it to a query [1.3.8]
				Writing	Applies/Uses technical words and concepts [1.6.4]
					Organizes information in an appropriate format [1.6.10]
4.4 Explain how to create a multitable query	4.4.1 Create and run a multitable query		Thinking	Creative Thinking	Combines information in a new way [4.1.2]
				Decision Making	Comprehends ideas and concepts related to queries [4.2.2]
				Knowing how to Learn	Applies new knowledge and skills to queries [4.3.1]
					Uses available resources to apply new skills [4.3.6]

	CAREER and TECHNICAL SKILLS			ACADEMIC and WORKPLACE SKILLS		
	What the Student Should be Able to Do			What the Instruction Should Reinforce		
Knowledge		Application		Skill Group	Skill	Description
4.5	Describe how to create queries using various comparison operators	4.5.1	Create queries using various comparison operators (=, <, >, <=, >=, <>, Between...And…, In (), Like)	Thinking	Reasoning	Comprehends ideas and concepts related to quieries [4.5.2]
				Foundation	Arithmetic / Mathematics	Applies mathematical principles related to queries [4.5.2]

Comprehends mathematical ideas and concepts related to queries [1.1.13]

Uses basic numerical concepts in practical situations [1.1.32] |
| 4.6 | Describe how to create queries using various logical operators | 4.6.1 | Create queries using AND, OR, or NOT | Foundation | Arithmetic / Mathematics | Applies mathmatical principles related to queries
Comprehends mathematical ideas and concepts related to queries [1.1.13]

Uses basic numerical concepts in practical situations [1.1.32] |
4.7	Identify reasons for a calculated field	4.7.1	Write a formula for a calculated field	Foundation	Arithmetic / Mathematics	Applies mathematical principles related to queries [1.1.4]
					Listening	Comprehends ideas and concepts related to queries [1.2.1]
4.8	Describe how to create queries with an aggregate function	4.8.1	Create a query with an aggregate function	Foundation	Reading	Applies/Understands technical words that pertain to fields [1.3.6]
				Thinking	Knowing how to Learn	Applies new knowledge and skills to setting up fields [4.3.1]
					Reasoning	Comprehends ideas and concepts related to fields [4.5.2]
		4.8.2	Add a Group By to an aggregate function	Foundation	Writing	Records data, using a query [1.6.16]
				Thinking	Knowing how to Learn	Applies new knowledge and skills to enter data, using a query [4.3.1]

Unit 5: Create Simple Forms and Reports
Hours: 4

Terminology: Autoformat, Conditional formatting, Control, Form wizard, Layout view, Main form, Report wizard, Subform

CAREER and TECHNICAL SKILLS			ACADEMIC and WORKPLACE SKILLS		
What the Student Should be Able to Do			What the Instruction Should Reinforce		
Knowledge		Application	Skill Group	Skill	Description
5.1 Define terminology	5.1.1	Prepare a list of terms with definitions	Foundation	Listening	Comprehends ideas and concepts related to plans [1.2.1]
				Writing	Uses words appropriately [1.6.21]
5.2 Explain how to create a form	5.2.1	Create a form	Foundation	Writing	Organizes information in an appropriate format [1.6.10]
					Records data [1.6.16]
5.3 Identify ways to modify and format a form	5.3.1	Modify and format a form	Thinking	Knowing how to Learn	Applies new knowledge and skills to a database [4.3.1]
					Uses available resources to apply new skills to create a form [4.3.6]
5.4 Explain the steps necessary to create a main form with a subform	5.4.1	Create a main form with a subform	Thinking	Reasoning	Applies rules and principles to create a form [4.5.1]
					Comprehends ideas and concepts related to creating a for [4.5.2]
5.5 Explain how to navigate through a form	5.5.1	Navigate through fields and records in a form	Foundation	Listening	Comprehends ideas and concepts related to fields [1.2.1]
	5.5.2	Navigate through fields and records in a main form and subform		Writing	Applies/Uses technical words and concepts [1.6.4]
			Thinking	Knowing how to Learn	Applies new knowledge and skills to calculated fields [4.3.1]

CAREER and TECHNICAL SKILLS			ACADEMIC and WORKPLACE SKILLS		
What the Student Should be Able to Do			What the Instruction Should Reinforce		
Knowledge		Application	Skill Group	Skill	Description
5.6	Explain how to create, format, and modify a report	5.6.1 Create a report	Foundation	Reading	Applies/Understands technical words that pertain to report [1.3.6]
		5.5.2 Modify and format a report		Writing	Applies/Uses technical words and concepts [1.6.4]
				Reasoning	Applies rules and principles to a new situation [4.5.1]
					Comprehends ideas and concepts related to reports [4.5.2]
5.7	Identify different types of conditional formatting	5.7.1 Apply conditional formatting to a report	Thinking	Creative Thinking	Combines ideas or information in a new way [4.1.2]
				Knowing how to Learn	Applies new knowledge and skills to reports [4.3.1]
				Problem Solving	Comprehends ideas and concepts related to reports [4.4.1]
5.8	Explain how to print forms and reports	5.8.1 Print various forms	Foundation	Listening	Listens to follow directions [1.2.6]
		5.8.2 Print various reports		Reading	Applies/Understands technical words that pertain to reports [1.3.6]

Unit 6: Creating Advanced Queries
Hours: 6

Terminology: Action query, Append query, Concantenated expression, Crosstab query, Delete query, Find duplicates query, Find unmatched query, Index, Make-table query, Parameter query, Top values query, Update query

CAREER and TECHNICAL SKILLS What the Student Should be Able to Do			ACADEMIC and WORKPLACE SKILLS What the Instruction Should Reinforce		
Knowledge		Application	Skill Group	Skill	Description
6.1 Define terminology		6.1.1 Prepare a list of terms with definitions	Foundation	Listening	Comprehends ideas and concepts related to plans [1.2.1]
				Writing	Uses words appropriately [1.6.21]
6.2 Explain how to create a parameter query		6.2.1 Create a parameter query	Foundation	Listening	Comprehends ideas and concepts related to plans [1.2.1]
					Listens to follow directions [1.2.6]
				Reading	Applies/Understands technical words that pertain to a query [1.3.6]
				Knowing how to Learn	Applies new knowledge and skills to create a query [4.3.1]
6.3 Explain how to create a crosstab query		6.3.1 Create a crosstab query	Foundation	Listening	Comprehends ideas and concepts related to plans [1.2.1]
					Listens to follow directions [1.2.6]
				Reading	Applies/Understands technical words that pertain to a query [1.3.6]
				Knowing how to Learn	Applies new knowledge and skills to create a query [4.3.1]
6.4 Explain how to create a find duplicates query		6.4.1 Create a find duplicates query	Thinking	Reasoning	Applies rules and principles to create a query [4.5.1]
				Reasoning	Comprehends ideas and concepts related to filters and queries [4.5.2]

	CAREER and TECHNICAL SKILLS		ACADEMIC and WORKPLACE SKILLS		
	What the Student Should be Able to Do		What the Instruction Should Reinforce		
Knowledge		Application	Skill Group	Skill	Description
6.5 Explain how to create a find unmatched query		6.5.1 Create a find unmatched query	Thinking	Reasoning	Applies rules and principles to create a query [4.5.1]
				Reasoning	Comprehends ideas and concepts related to filters and queries [4.5.2]
6.6 Describe the steps in creating a top values query		6.6.1 Create a top values query	Thinking	Knowing how to	Applies new knowledge and skills to a query [4.3.1]
					Uses available resources to acquire new skills in relation to a query [4.3.4]
6.7 Explain reasons for creating a concantenation		6.7.1 Create a concantenated expression using the fields and the & (ampersand)	Thinking	Knowing how to Learn	Applies new knowledge and skills to a query [4.3.1]
					Uses available resources to acquire new skills in relation to a query [4.3.4]
6.8 Explain the purpose of an action query		6.8.1 Create the following action queries: make-table, append, delete, and update	Foundation	Listening	Comprehends concepts related to a query [1.2.1]
				Reading	Analyzes and applies what has been read to specific task [1.3.2]
					Applies information and concepts derived from printed material to a query [1.3.3]
					Applies/Understands technical words that pertain to the hierarchy of data [1.3.6]
6.9 Explain the reason for an index		6.9.1 Create an index	Foundation	Listening	Comprehends concepts related to a query [1.2.1]
				Reading	Comprehends written information for main ideas [1.3.7]
					Identifies relevant deatails, facts, and specifications [1.3.16]
			Thinking	Decision Making	Comprehends ideas and concepts related to queries [4.2.2]

Unit 7: Creating Custom Forms
Hours: 6

Terminology: Bound control, Calculated control, Detail section, Design grid, Form footer, Form header, Label, Special effect property, Tab order, Unbound control

CAREER and TECHNICAL SKILLS What the Student Should be Able to Do			ACADEMIC and WORKPLACE SKILLS What the Instruction Should Reinforce		
Knowledge		Application	Skill Group	Skill	Description
7.1	Define terminology	7.1.1 Prepare a list of terms with definitions	Foundation	Listening	Comprehends ideas and concepts related to plans [1.2.1]
				Writing	Uses words appropriately [1.6.21]
7.2	Explain how to create a form using various tools	7.2.1 Create a form using the Datasheet tool, Multiple Items tool, and Split Form tool	Foundation	Writing	Organizes information in an appropriate format [1.6.10]
					Records data [1.6.16]
			Thinking	Knowing	Applies new knowledge and skills to a custom form [4.3.1]
					Uses available resources to apply new skills to create a new custom form [4.3.6]
				Reasoning	Applies rules and principles to create a new custom form [4.5.1]
					Comprehends ideas and concepts related to creating a new custom form [4.5.2]
7.3	Compare/Contrast the three types of controls	7.3.1 Explore an existing form and identify the bound, unbound and calculated control	Foundation	Listening	Comprehends concepts related to a custom form [1.2.1]
				Reading	Analyzes and applies what has been read to specific task [1.3.2]
7.4	Explain how to create a custom form	7.4.1 Create a custom form with some of the following: form header, footer, title, logo, label, etc.	Foundation	Reading	Applies information and concepts derived from printed material to a custom form [1.3.3]
					Applies/Understands technical words that pertain to the hierarchy of data [1.3.6]
			Thinking	Knowing how to Learn	Applies new knowledge and skills to a custom form [4.3.1]
					Uses available resources to acquire new skills in relation to a custom form [4.3.4]

	Knowledge		Application	Skill Group	Skill	Description
7.5	Discuss advantages of creating a main form and subform	7.5.1	Create a main form with a subform	Foundation	Listening	Comprehends ideas and concepts related to forms [1.2.1]
					Writing	Applies/Uses technical words and concepts [1.6.4]
				Thinking	Knowing how to Learn	Applies new knowledge and skill to forms [4.3.1]
7.6	Identify how to change the tab order	7.6.1	Change the tab order in a form	Thinking	Creative Thinking	Combines ideas or information in a new way [4.1.2]
					Knowing how to Learn	Applies new knowledge and skills to forms [4.3.1]
					Problem Solving	Comprehends ideas and concepts related to forms [4.4.1]
7.7	Discuss ways to enhance the visual effects of a form	7.7.1	Add some of these visual effects to a form: lines, rectangle, special effect properties, backgrounds, logo, etc.	Thinking	Creative Thinking	Combines ideas or information in a new way [4.1.2]
						Makes connections between seemingly unrelated ideas [4.1.6]
					Decision Making	Demonstrates decision-making skills [4.2.4]
					Knowing how to Learn	Applies new knowledge and skills to forms [4.3.1]
						Uses available resources to acquire new skills or improve skills [4.3.4]

CAREER and TECHNICAL SKILLS	ACADEMIC and WORKPLACE SKILLS
What the Student Should be Able to Do	What the Instruction Should Reinforce

Unit 8: Creating Custom Reports
Hours: 6

Terminology: Can grow property, Custom report, Date function, Group footer section, Group header section, Group, Sort and Total pane, Hide duplicates property, Keep together property, Label wizard, Report footer Section, Report header section, Report page footer section, Report page header section

CAREER and TECHNICAL SKILLS			ACADEMIC and WORKPLACE SKILLS		
What the Student Should be Able to Do			What the Instruction Should Reinforce		
Knowledge		Application	Skill Group	Skill	Description
8.1 Define terminology	8.1.1	Prepare a list of terms with definitions	Foundation	Listening	Comprehends ideas and concepts related to custom report [1.2.1]
				Writing	Uses words appropriately [1.6.21]
8.2 Explain how to modify and	8.2.1	Modify a report adding some of these features: grouping and sorting, totals, backgrounds, lines, logos, etc.	Foundation	Reading	Applies/Understands technical words that pertain to custom reports [1.3.6]
				Writing	Applies/Uses technical words and concepts [1.6.4]
				Reasoning	Applies rules and principles to a new situation [4.5.1]
					Comprehends ideas and concepts related to custom reports [4.5.2]
8.3 Explain how to create a custom report	8.3.1	Create a custom report with some of these features: report header/footer, page header/footer, group header/footer, dates, page numbers, titles, lines, etc.	Foundation	Reading	Applies/Understands technical words that pertain to custom reports [1.3.6]
				Writing	Applies/Uses technical words and concepts [1.6.4]
				Reasoning	Applies rules and principles to a new situation [4.5.1]
					Comprehends ideas and concepts related to custom reports [4.5.2]

CAREER and TECHNICAL SKILLS			ACADEMIC and WORKPLACE SKILLS		
What the Student Should be Able to Do			What the Instruction Should Reinforce		
Knowledge		Application	Skill Group	Skill	Description
8.4 Explain grouping and sorting of data in a report	8.4.1	Add grouping and sorting to a report	Foundation	Listening	Comprehends ideas and concepts related to a custom report [1.2.1]
	8.4.2	Apply the keep together property to a report			Listens to follow directions [1.2.6]
				Reading	Applies/Understands technical words that pertain to a custom report [1.3.6]
				Writing	Applies/Uses technical words and concepts in a custom report [1.6.4]
					Organizes information in an appropriate format [1.6.10]
8.5 Explain the purpose of the hiding duplicate values property	8.5.1	Hide duplicate values in a report	Thinking	Knowing how to Learn	Applies new knowledge and skills to a custom report [4.3.1]
				Reasoning	Applies rules and priniples to a custom report [4.5.1]
					Comprehends ideas and concepts related to a custom report [4.5.2]
8.6 Explain how to create mailing labels	8.6.1	Create mailing labels	Thinking	Reasoning	Comprehends ideas and concepts related to filter and queries [4.5.2
				Writing	Composes and creates documents [1.6.8]
					Organizes data in an appropriate format [1.6.10]

Unit 9: Sharing, Integrating, Analyzing and Managing
Hours: 7

Terminology: Attachment field, Chart, comma-separated file (CSV), Decrypting, Delimited, Embed, Encryption, Export, HTML, Import, Pivot Chart/Table, Password, Split, Text file, XML

CAREER and TECHNICAL SKILLS			ACADEMIC and WORKPLACE SKILLS		
What the Student Should be Able to Do			What the Instruction Should Reinforce		
Knowledge	Application		Skill Group	Skill	Description
9.1　Define terminology	9.1.1　Prepare a list of terms with definitions		Foundation	Listening	Comprehends ideas and concepts related to plans [1.2.1]
				Writing	Uses words appropriately [1.6.21]
9.2　Discuss various ways to export	9.2.1　Export data from some of the following formats: HTML document, XML, etc.		Thinking	Creative Thinking	Combines ideas of information in a new way [4.1.2]
				Knowing how to Learn	Uses available resources to acquire new skills or improve skills [4.3.4]
9.3　Discuss various ways to import	9.3.1　Import data from some of the following formats: CSV, text file, XML, etc.		Thinking	Creative Thinking	Combines ideas of information in a new way [4.1.2]
				Knowing how to Learn	Uses available resources to acquire new skills or improve skills [4.3.4]
9.4　Identify ways to save database objects as other file types	9.4.1　Save database objects as other file types		Foundation	Listening	Comprehends concepts related to a database [1.2.1]
				Reading	Analyzes and applies what has been read to specific task [1.3.2]
					Applies information and concepts derived from printed material to a database [1.3.3]
			Thinking	Knowing how to Learn	Applies new knowledge and skills to a database [4.3.1]
					Uses available resources to acquire new skills in relation to a database [4.3.4]

CAREER and TECHNICAL SKILLS		ACADEMIC and WORKPLACE SKILLS		
What the Student Should be Able to Do		What the Instruction Should Reinforce		
Knowledge	Application	Skill Group	Skill	Description
9.5 Explain Analyzer tools	9.5.1 Use the Analyzer	Foundation	Writing	Applies/Uses technical words and concepts [1.6.4]
				Composes and creates documents [1.6.8]
				Organizes data in an appropriate format [1.6.10]
		Thinking	Creative Thinking	Combines ideas or information in a new way [4.1.2]
			Knowing how to Learn	Applies new knowledge and skills to reports [4.3.1]
			Problem Solving	Comprehends ideas and concepts related to reports [4.4.1]
9.6 Explain how to embed or link various objects in a form	9.6.1 Add and modify some of these to a form: a chart, pivot chart/table, link data from a worksheet, link to a table in another database	Foundation	Listening	Comprehends ideas and concepts related to reports [1.2.1
				Listens to follow directions [1.2.6]
			Reading	Applies/Understands technical words that pertain to reports [1.3.6]
			Writing	Applies/Uses technical words and conepts [1.6.4]
				Organizes data in an appropriate format [1.6.10]
			Creative Thinking	Combines ideas or information in a new way [4.1.2]
			Knowing how to Learn	Applies new knowledge and skills to reports [4.3.1]
			Problem Solving	Comprehends ideas and concepts related to reports [4.4.1]

CAREER and TECHNICAL SKILLS				ACADEMIC and WORKPLACE SKILLS		
What the Student Should be Able to Do				What the Instruction Should Reinforce		
Knowledge		Application		Skill Group	Skill	Description
9.7	Explain how to create an attachment field	9.7.1	Attach documents to and detach from records	Foundation	Listening	Comprehends ideas and concepts related to reports [1.2.1
						Listens to follow directions [1.2.6]
					Reading	Applies/Understands technical words that pertain to reports [1.3.6]
					Writing	Applies/Uses technical words and conepts [1.6.4]
						Organizes data in an appropriate format [1.6.10]
					Creative Thinking	Combines ideas or information in a new way [4.1.2]
					Knowing how to	Applies new knowledge and skills to reports [4.3.1]
					Problem Solving	Comprehends ideas and concepts related to reports [4.4.1]
9.8	Discuss reasons to split a database	9.8.1	Use the splitter	Thinking	Creative Thinking	Combines ideas of information in a new way [4.1.2]
					Knowing how to Learn	Uses available resources to acquire new skills or improve skills [4.3.4]

Unit 10: Macros and Switchboards
Hours: 7

Terminology: Action, Argument, Command button, Event, Macro, Macro group, Switchboard

CAREER and TECHNICAL SKILLS			ACADEMIC and WORKPLACE SKILLS		
What the Student Should be Able to Do			What the Instruction Should Reinforce		
Knowledge	Application	Skill Group	Skill	Description	
10.1 Define terminology	10.1.1 Prepare a list of terms with definitions	Foundation	Listening	Comprehends ideas and concepts related to plans [1.2.1]	
			Writing	Uses words appropriately [1.6.21]	
10.2 Explain the purpose of a switchboard	10.2.1 Create a switchboard	Foundation	Listening	Comprehends ideas and concepts related to reports [1.2.1	
				Listens to follow directions [1.2.6]	
			Reading	Applies/Understands technical words that pertain to reports [1.3.6]	
			Writing	Applies/Uses technical words and concepts [1.6.4]	
				Organizes data in an appropriate format [1.6.10]	
			Creative Thinking	Combines ideas or information in a new way [4.1.2]	
			Knowing how to Learn	Applies new knowledge and skills to reports [4.3.1]	
			Problem Solving	Comprehends ideas and concepts related to reports [4.4.1]	

CAREER and TECHNICAL SKILLS		ACADEMIC and WORKPLACE SKILLS		
What the Student Should be Able to Do		What the Instruction Should Reinforce		
Knowledge	Application	Skill Group	Skill	Description
10.3 Explain the purpose of a macro	10.3.1 Create a macro	Foundation	Listening	Comprehends ideas and concepts related to macros and switchboards [1.2.1]
				Listens to follow directions [1.2.6]
			Reading	Applies/Understands technical words that pertain to reports [1.3.6]
			Writing	Applies/Uses technical words and conepts [1.6.4]
				Organizes data in an appropriate format [1.6.10]
			Creative Thinking	Combines ideas or information in a new way [4.1.2]
			Knowing how to Learn	Applies new knowledge and skills to reports [4.3.1]
			Problem Solving	Comprehends ideas and concepts related to reports [4.4.1]
10.4 Identify reasons to make a macro group	10.4.1 Create a macro group	Foundation	Listening	Comprehends concepts related to a database [1.2.1]
			Reading	Analyzes and applies what has been read to specific task [1.3.2]
				Applies information and concepts derived from printed material to a database [1.3.3]
		Thinking	Knowing how to Learn	Applies new knowledge and skills to a database [4.3.1]
				Uses available resources to acquire new skills in relation to a database [4.3.4]

CAREER and TECHNICAL SKILLS			ACADEMIC and WORKPLACE SKILLS		
What the Student Should be Able to Do			What the Instruction Should Reinforce		
Knowledge	Application	Skill Group	Skill	Description
10.5 Explain the process of adding a command button to a form or report	10.5.1 Add a command button to a form or report	Foundation	Listening	Comprehends ideas and concepts related to reports [1.2.1]
				Listens to follow directions [1.2.6]
	10.5.2 Add a command button to a form and assign it to a macro		Reading	Applies/Understands technical words that pertain to reports [1.3.6]
			Writing	Applies/Uses technical words and conepts [1.6.4]
				Organizes data in an appropriate format [1.6.10]
			Creative Thinking	Combines ideas or information in a new way [4.1.2]
			Knowing how to Learn	Applies new knowledge and skills to reports [4.3.1]
			Problem Solving	Comprehends ideas and concepts related to reports [4.4.1]

Unit 11: Intro to SQL--Recommended by not required
Hours: 8

Terminology: Create table, Delete, Drop table, Insert into, Not null, Order by, Select, SQL, Update

CAREER and TECHNICAL SKILLS			ACADEMIC and WORKPLACE SKILLS		
What the Student Should be Able to Do			What the Instruction Should Reinforce		
Knowledge	Application	Skill Group	Skill	Description	
11.1 Define terminology	11.1.1 Prepare a list of terms with definitions	Foundation	Listening	Comprehends ideas and concepts related to SQL [1.2.1]	
			Writing	Uses words appropriately [1.6.21]	
11.2 Describe briefly the history of SQL	11.2.1 Discuss the history of SQL	Foundation	Speaking	Participates in conversation, discussion and group presentation [1.5.8]	
			Writing	Organizes information into an appropriate format [1.6.10]	
11.3 Explain how to layout and create a table in SQL	11.3.1 Use the CREATE TABLE command	Foundation	Listening	Comprehends ideas and concepts related to reports [1.2.1]	
				Listens to follow directions [1.2.6]	
			Reading	Applies/Understands technical words that pertain to reports [1.3.6]	
			Writing	Applies/Uses technical words and conepts [1.6.4]	
				Organizes data in an appropriate format [1.6.10]	
			Creative Thinking	Combines ideas or information in a new way [4.1.2]	
			Knowing how to Learn	Applies new knowledge and skills to reports [4.3.1]	
			Problem Solving	Comprehends ideas and concepts related to reports [4.4.1]	

CAREER and TECHNICAL SKILLS			ACADEMIC and WORKPLACE SKILLS		
What the Student Should be Able to Do			What the Instruction Should Reinforce		
Knowledge	Application	Skill Group	Skill	Description
11.4 Explain how to delete a table using SQL	11.4.1 Use the DROP TABLE command	Foundation	Listening	Comprehends ideas and concepts related to SQL [1.2.1]
				Listens to follow directions [1.2.6]
			Reading	Applies/Understands technical words that pertain to reports [1.3.6]
			Writing	Applies/Uses technical words and conepts [1.6.4]
				Organizes data in an appropriate format [1.6.10]
			Creative Thinking	Combines ideas or information in a new way [4.1.2]
			Knowing how to Learn	Applies new knowledge and skills to reports [4.3.1]
			Problem Solving	Comprehends ideas and concepts related to reports [4.4.1]
11.5 Explain how to add and modify records using SQL	11.5.1 Use the INSERT INTO command

11.5.2 Use the UPDATE command | Foundation | Listening | Comprehends ideas and concepts related to reports [1.2.1 |
				Listens to follow directions [1.2.6]
			Reading	Applies/Understands technical words that pertain to reports [1.3.6]
			Writing	Applies/Uses technical words and conepts [1.6.4]
				Organizes data in an appropriate format [1.6.10]
			Creative Thinking	Combines ideas or information in a new way [4.1.2]
			Knowing how to Learn	Applies new knowledge and skills to reports [4.3.1]
			Problem Solving	Comprehends ideas and concepts related to reports [4.4.1]

CAREER and TECHNICAL SKILLS			ACADEMIC and WORKPLACE SKILLS		
What the Student Should be Able to Do			What the Instruction Should Reinforce		
Knowledge	Application	Skill Group	Skill	Description	
11.6 Explain how to query a database using SQL	11.6.1 Use the SELECT command with various operators and clauses	Foundation	Listening	Comprehends ideas and concepts related to reports [1.2.1	
				Listens to follow directions [1.2.6]	
			Reading	Applies/Understands technical words that pertain to reports [1.3.6]	
			Writing	Applies/Uses technical words and conepts [1.6.4]	
				Organizes data in an appropriate format [1.6.10]	
			Creative Thinking	Combines ideas or information in a new way [4.1.2]	
			Knowing how to Learn	Applies new knowledge and skills to reports [4.3.1]	
			Problem Solving	Comprehends ideas and concepts related to reports [4.4.1]	
11.7 Explain how to sort a database in SQL	11.7.1 Use the ORDER BY command to sort in ascending and descending order	Foundation	Listening	Comprehends ideas and concepts related to reports [1.2.1	
				Listens to follow directions [1.2.6]	
			Reading	Applies/Understands technical words that pertain to reports [1.3.6]	
			Writing	Applies/Uses technical words and conepts [1.6.4]	
				Organizes data in an appropriate format [1.6.10]	
			Creative Thinking	Combines ideas or information in a new way [4.1.2]	
			Knowing how to Learn	Applies new knowledge and skills to reports [4.3.1]	
			Problem Solving	Comprehends ideas and concepts related to reports [4.4.1]	

Glossary
Unit 1: Introduction to Relational Databases and Database Careers

1. Backing up – making a copy of a database file to protect your database against loss or damage

2. Compacting – a process that rearranges the data and objects in a database to decrease file size, thereby making more space available on your disk and letting you open and close the database more quickly

3. Data – information in a database

4. Database – a collection of related tables stored in the same file

5. Database Management System (DBMS) – a software program used to create and then manipulate data in it

6. Entry – a single piece of information in a database

7. Field – a single characteristic or attribute of a person, place, object, event or idea

8. File – a collection of data that has a name and is stored in a computer

9. Form – a database object that can be created that makes it easier to maintain, view, and print records in a database in different and useful ways

10. Query – a question that can be asked about the data stored in a database, in response, displays the specific records and fields that answer the question

11. Relational database – a collection of related tables stored in the same file

12. Report – a formatted printout (or screen display) of the contents of one or more tables in a database

13. Table – a collection of fields that describe a person, place, object, event or data displayed in columns and rows

14. Trusted folder – a folder on a drive or network that can be designated as trusted where databases are stored and considered safe

Unit 2: Building a Relational Database and Defining Table Relationships

1. Cascade delete/update – a referential integrity rule that when a record in the primary table is deleted or changed, the records in the related tables are also deleted or changed

2. Common field – a field that appears in more than one table, allowing you to connect or join the records

3. Data redundancy – a condition that occurs when you store the same data in more than one place; it wastes storage space and can cause inconsistencies

4. Default value – a field property you insert for values that are the same for most of your records. For example, most of your students are from Arkansas, you can set your State field properties to AR

5. Field properties – define the field's characteristics and behavior, such as data type, field size, etc.

6. Input mask – a field property you add with a predefined format for entering and displaying data. For example you can insert an input mask for phone numbers, zip codes, social security numbers and the like, so that when you are keying in the data you do not have to key in the (), - , etc.

7. Join – to relate tables through a common field

8. Lookup field – this can be set so that the values in the field can either be brought in from another table or they can be created by the user. For example, you could bring in the names of all of the states from a table, so that you did not have to key these in, but can just choose from the lookup table

9. Many-to-many relationship – a relationship between two tables in which each record in the first table matches many in the second table and each record in the second table matches many records in the first table. For a many-to-many relationship, you must create a third table to join the two tables

10. One-to-many relationship – a relationship between two tables in which each record in the first table matches zero, one or many in the second table, and each record in the second table matches at most one record in the first table

11. One-to-one relationship – a relationship between two tables in which each record in the first table matches at most one record in the second table, and each record in the second table matches at most one record in the first table

12. Primary key – a unique value in a record

13. Referential integrity – is a set of rules enforced to maintain consistency between related tables when you update data in a database

14. Required field – a field set by the user so that this field cannot be null or left empty. For example, you may always want the user to enter in their address, so you would set Address so that it is required

15. Validation rule – a field property value that specifies the acceptable values for that field. For example, if your database only has students in 10-12th grade, your rule could be: 10 or 11 or 12

16. Validation text – a field property value that displays the rule for the acceptable values for that field. For example, if your database only has students 10-12th grade, your rule would be: Only enter grades 10 through 12

Unit 3: Maintaining and Formatting Tables in a Database

1. Ascending – sorting from low to high or A to Z

2. Advanced filter – used when you want to filter records with more flexibility – sorting, using operators, etc.

3. Descending – sorting from high to low or Z to A

4. Filter – is a set of restrictions you place on the records in an open datasheet or form to temporarily isolate a subset of the records

5. Filter by form – a filtering technique that changes the datasheet to display empty fields and select from a list value. The filter then shows values that match that selection.

6. Filter by selection – a filter technique that lets you select all or part of a field value and then display only those records that match the selected value

7. Find – allows you to search a table or query datasheet, or a form, to locate a specific field, value or part of a field value

8. Sort – is the process of rearranging records in a specified order or sequence

9. Wildcards – used when you know only a part of the search value. * – means all, # – means one number, ? – means one character. For example, if want to search for all cities that begin with the letter C, then use C*

Unit 4: Creating Simple Queries

1. Aggregate function – perform arithmetic operations on selected records in a database

2. AND – the logical operator you use in a query when you want a record selected only if two or more conditions are met (for example if you query "car" and "red", you would get a Red Mustang

3. Calculated field – a field that displays the result of an expression. For example, you can create a field that would calculate Discount Price – =[Price]*.80

4. Comparison operators (=, <, >, <=, >=, <>, Between...And…, In (), Like) – in a query, an operator that is used to compare records and to select all the record for which the relationship is true

5. Group by operators – divides the selected records into groups based on the values in the specified field

6. Logical operators – in a query, an operator that allows you to combine two or more conditions (AND, OR, NOT)

7. NOT – a logical operator that negates a criterion or selects all of the records that do not match the criterion

8. OR – a logical operator that you use in a query when you want to select records that match at least one of the criterion (for example, if you query "car" and "red", you could get a red apple

9. Select query – a query in which you specify the fields and records you want to select

10. QBE – (Query By Example) using a grid to form queries where fields can be added, sorted, compared, etc.

11. Query – a question you ask about the data in a database and Access displays the records or fields that answer that question

12. Recordset – the datasheet that is the result of a query

Unit 5: Create Simple Forms and Reports

1. Autoformat – a predefined style that you can apply to a form for a report

2. Conditional formatting – is special formatting that can be applied to certain field values depending on one or more conditions in a report or form

3. Control – is an item on a form, report, or other database object that you can manipulate to modify the object's appearance

4. Form wizard – a tool that ask you a series of questions, and then creates a form based on your answers

5. Layout view – an Access view in which you can make design changes to a form or report while it is displaying data so that you can immediately see the effect of changing the design

6. Main form – in a form based on two table, the form that contains data from the primary table

7. Report wizard – a tool that asks you a series of questions, and then creates a report based on your answers

8. Subform –a form within a form based on two tables, the form that contains data from the related table

Unit 6: Creating Advanced Queries

1. Action query – a query that adds, changes, or deletes multiple table records at a time

2. Append query – a query that adds selected fields in records from existing tables or queries to the end of another table

3. Concantenated expression – an expression used to combine text fields together (for example: LastName & " " & FirstName)

4. Crosstab query – a query that performs aggregate function calculations on the values of one database field and display the result in a spreadsheet format

5. Delete query – a query that deletes a group of records matching the criteria you specify from one or more tables

6. Find duplicates query – a select query that finds repeated records in a table or query

7. Find unmatched query – a select query that finds all records in a table or query that have no related records in a second table or query

8. Index – a list that relates field values to the records that contain those field values that can quickly locate records

9. Make-table query – a query that creates a new table by copying selected fields in records from one or more existing tables

10. Parameter query – a query that displays a dialog box to prompt you to enter one or more criteria values when you run the query

11. Top values query – a query property that lets you limit the number of records in the query results of a specific number or percentage (for example – top 10 or top 10%)

12. Update query – a query that changes selected fields from selected records in one or more tables bases on the criteria you specify

Unit 7: Creating Custom Forms

1. Bound control – a conrol that is connected, or bound, to a field in the database based on the record source

2. Calculated control – a control that displays the result of an expression

3. Detail section – the main body of a form or report in which you place bound, unbound and calculated controls

4. Design grid – the arrangement of dotted and solid lines in a section that help you position controls precisely in a form or report

5. Form footer – appears at the bottom of a form

6. Form header – appears at the top of the form and is used to display titles, a picture, date/time, etc.

7. Label – an unbound control that displays text

8. Special effect property – a property that you use to specify the type of special effect applied to a control in a form or report. Choices are chiseled, etched, flat, raised, shadowed, and sunken

9. Tab order – the order in which you move from control to control, or change the focus, in a form when you press the Tab key

10. Unbound control – a control that is not connected to a field in the database and that is used to display controls such as text, lines, rectangles, and graphics

Unit 8: Creating Custom Reports

1. Can grow property – a property that controls the appearance of a control or section in a form or report when printed or previewed; when set to Yes, the control or section expands to fit the data

2. Custom report – a report you create

3. Date function – a function that returns the current date

4. Group footer section – a report section appears after each group of records that usually displays subtotals or counts for the records in that group

5. Group header section – a report section appears before each group of records that usually displays the group name and the sort field value for the group

6. Group, Sort and Total pane – a pane in a report in which you can modify the grouping fields, sort fields, and calculations for the report

7. Hide duplicates property – a property that you use to hide a control in a report when the field's value is the same as the one before it

8. Keep together property – a property for a group in a report to keep parts of the group together on the same page

9. Label wizard – a tool that asks the user a series of questions and then creates a mailing label report based on the answers

10. Report footer section – a report section that appears once at the bottom of a report and usually contains report totals and other summary information

11. Report header section – a report section that appears once at the top of the report and usually contains titles, logos, etc.

12. Report page footer section – a report section that appears at the bottom of each page of a report

13. Report page header section – a report section that appears at the top of each page of the report and usually contains column headings, titles, etc.

Unit 9: Sharing, Integrating, Analyzing and Managing

1. Attachment field – allows the user to attach external files such as workbooks, documents, and images

2. Chart – a graphical representation of data shown as a bar graph, column graph, pie chart, line graph, etc.

3. Comma-separated file (CSV) – a text file in which commas separate values, and each line is a record containing the same number of values in the same position

4. Decrypting – the translation of encrypted data in a database into a normal form that users can understand

5. Delimited – a type of text file in which fields of data are separated by a character such as a comma or tab

6. Embed – creating or copying an object in a form or report and preserving the object's connection to the source program which enables you to edit the object in the source program (for example, you add a spreadsheet to a form and can still edit it)

7. Encryption – the conversion and storage of the data in a database to a format that is unrecognizable (undecipherable) to a word processor or other program

8. Export – to format data in such a way that it can be used by another application

9. HTML – (Hypertext Markup Language) the language used to create documents on the World Wide Web

10. Import – to bring in files from other applications

11. Pivot Chart/Table – an interactive chart or table that lets you analyze data dynamically

12. Password – a string of characters assigned to a database that users must enter before they can open the database

13. Split – allows the user to split the database into two files: one file contains the tables, and the other file contains the queries, forms, reports, and other database objects

14. Text file – a file that contains characters. These are used to import and export data from one application to another

15. XML – (Extensible Markup Language) a programming language that describes the data it contains and how the data should be structured and is suited to the exchange of data between different programs

Unit 10: Macros and Switchboards

1. Action – an instruction to Access to perform an operation such as open a file, beep, find a record, display a message box, etc.

2. Argument – additional facts the Access need to excecute an action, such as what file to open or what to display in the message box

3. Command button – a control on a form or report that starts an action, or set of actions, when you click it

4. Event – is a state, condition, or occurrence. For example, events occur when the user clicks a command button, or presses a key to choose an option

5. Macro – an action, or a set of actions, that the user can write so it can perform them automatically

6. Macro group – a macro that contains other macros

7. Switchboard – a form that appears when you open a database and that provides controlled access to the database's forms, reports and queries

Unit 11: Intro to SQL – Recommended, but not required

1. Create table – an SQL command used to describe the layout of the table which after running creates the table

2. Delete – a SQL command used to delete data from a table

3. Drop table – a SQL command used to delete an entire table

4. Insert intro – a SQL command that adds rows to a table

5. Not null – a SQL clause used to specify that certain fields or columns in a record cannot contain null values or be left blank

6. Order by – a SQL statement used to sort data

7. Select – a SQL command used to query a database

8 SQL – (Structured Query Language) one of the most popular and widely used languages for retrieving and manipulating database data

9 Update – a SQL command used to change a value in a table